

# Working together to shape Atlanta's future



Georgia Tech President Wayne Clough  
May 5, 2005

# Pop quiz

1. Of the 16 states in the southeast, where does Georgia Rank in terms of in-state tuition? **16th**
2. Which southern state is projected to have one of the nation's fastest growing college-bound populations? **Georgia**
3. How many states have two universities ranked in among the nation's top 20 public universities? **Three: CA, VA, GA**
4. What did the state appropriate to build major capital facilities for the University System over the past 3 years?  
A) \$400 m   B) \$300 m   C) \$200 m   **D) Less than \$200 m**

## Pop quiz, continued

5. Which two of the 34 institutions in the University System of Georgia experienced the largest numerical growth during the past 5 years? Georgia Tech, Kennesaw
6. How many Georgia universities have research expenditures in the nation's top 35? One: Georgia Tech
7. Name Georgia's top 3 patent producers last year.  
GE Energy, BellSouth, Georgia Tech
8. How much of Georgia Tech's capital construction is funded by the state of Georgia?  
A) 75%    B) 50%    C) 25%    D) Less than 20%

## Pop quiz, continued

9. How much of Georgia Tech's budget comes from the state?  
A) 75%    B) 50%    **C) 25%**    D) None of these
10. The Georgia Tech Research Institute employs 1,200 and conducts \$100 million in research annually. How much of this funding comes from the state? A) 50%    B) 25%  
**C) 10%**    D) Less than 10%
11. How many campuses does Georgia Tech have?    **Four**
12. Which universities formed the nation's first public-private joint academic department – an engineering department ranked among the nation's top 5?    **Georgia Tech, Emory**

## Pop quiz, continued

13. What are the highest ranked science programs in the state? #32 in chemistry, #32 in physics – Georgia Tech
14. How many Nobel Prize winners are on the faculties of Georgia's research universities? Zero
15. How many National Medals of Science have been won by faculty at Georgia's research universities? Zero

If you answered at least 12 questions correctly,  
give yourself an "A"!





# Georgia Tech: Recognized for excellence

- Among top 10 public universities in the nation.
- Among top 5 engineering schools in the nation.
- Nationally ranked: computing, architecture, management, selected science and liberal arts programs.
- SAT score among nation's top 5 public universities.
- 15 national centers of excellence

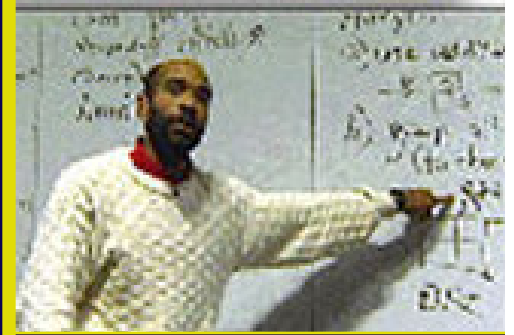
# Georgia Tech vision and mission

Georgia Tech will define the technological research university of the 21st century and educate the leaders of a technologically driven world.



# Achieving the vision

- Excellence and innovation.
- Best students, faculty, staff.
- Leading-edge facilities, services.
- Interdisciplinary initiatives.
- Distinctive sense of place.
- Community and industry collaboration.
- Global outlook.
- Optimal technology transfer.





# Students

16,800 students enrolled:

- 11,500 under-graduates
- 5,300 graduate students
- 16,200 in Atlanta.
- Growing enrollment: added 3,800 students in the past 10 years.

Georgia Tech is a national leader in graduating engineers, including minorities & women.



# Four campuses on three continents



Georgia Tech-Atlanta



Georgia Tech-Lorraine



Georgia Tech-Savannah

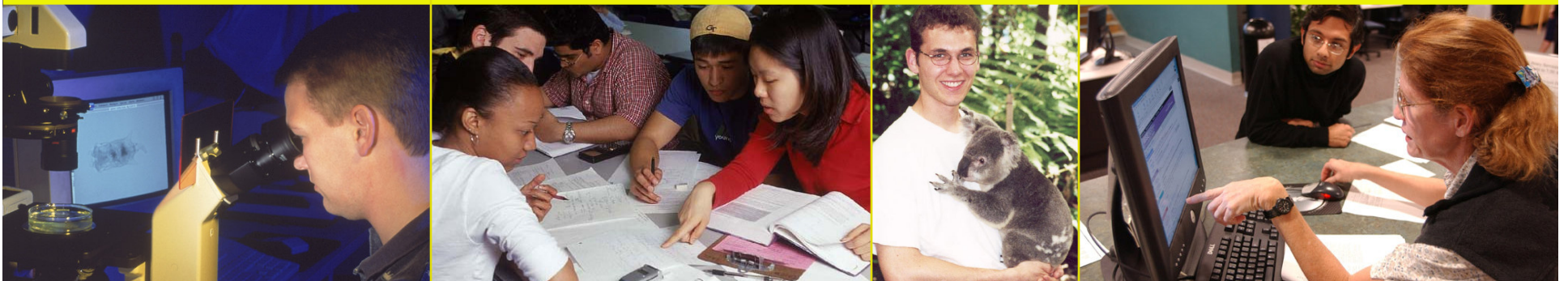


Georgia Tech-Singapore



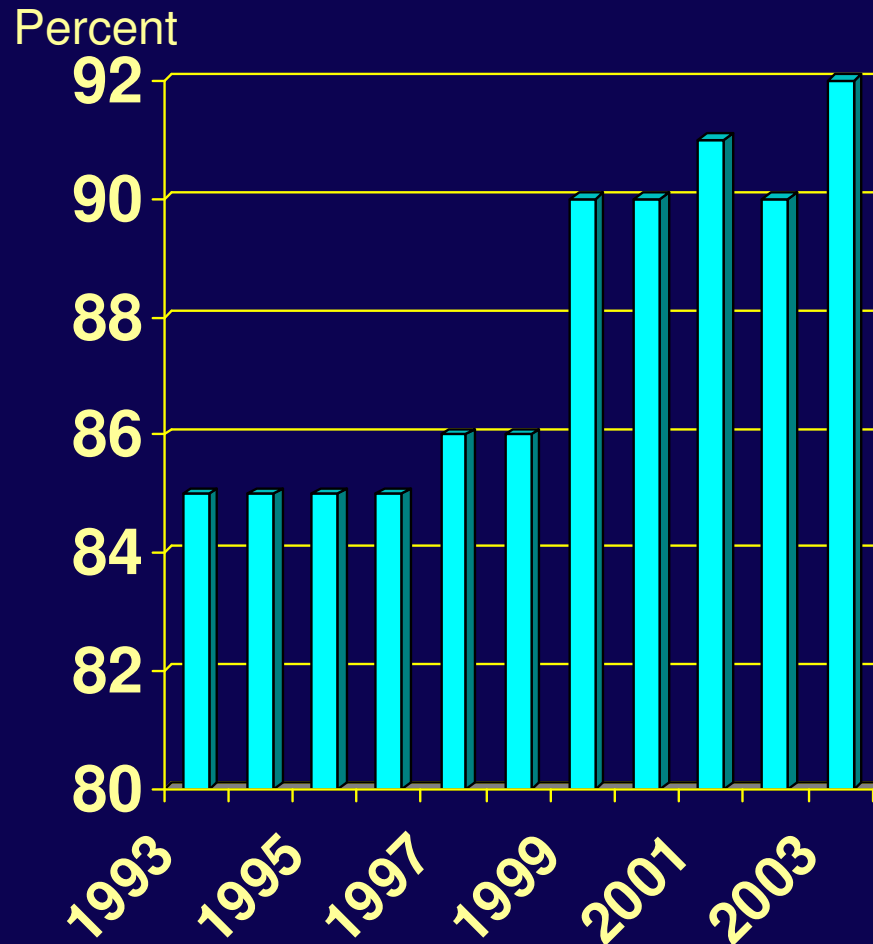
# Undergraduate initiative

- Student computer initiative; Web-enhanced curriculum.
- Mid-semester grade reports and follow-up help for lagging students.
- Undergraduate research opportunities: 40%.
- Expanded international study options: 33%.
- Enhanced student life/leadership options.
- 1999 Hesburgh Award for excellence in teaching.

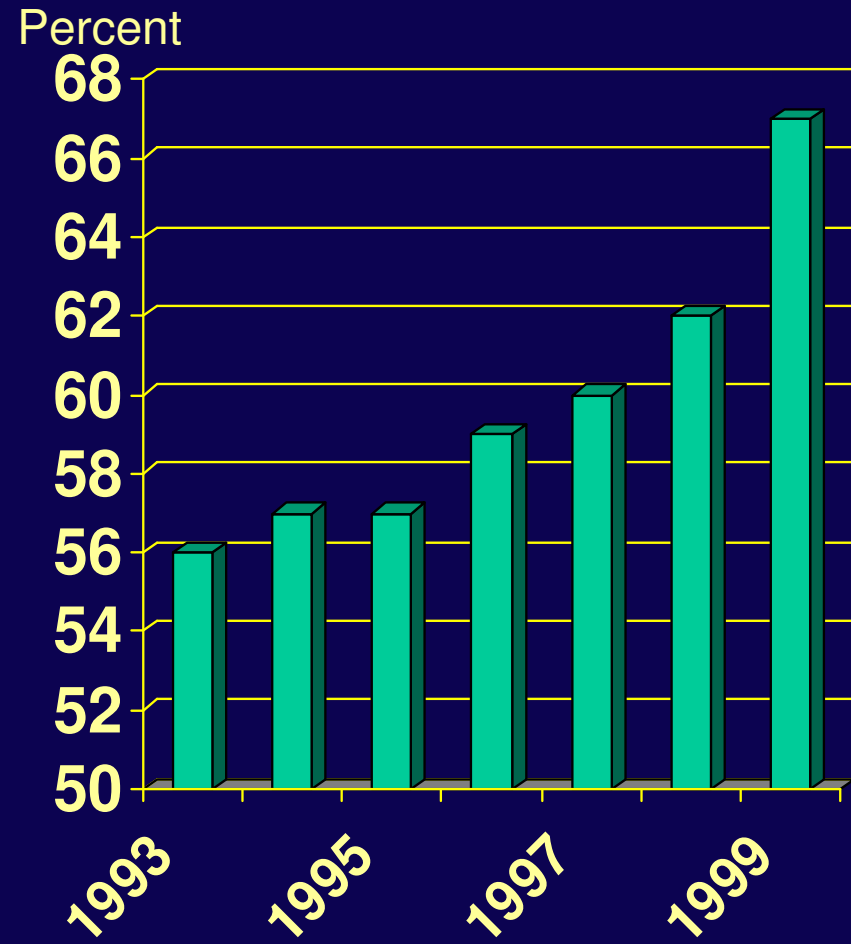


# Retention, graduation improve

1<sup>st</sup> year retention



5 year graduation



Year enrolled as freshmen



Sustainable  
technology



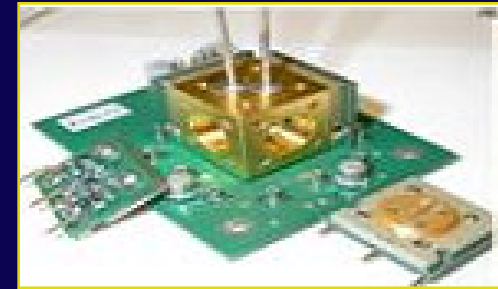
# Research thrusts



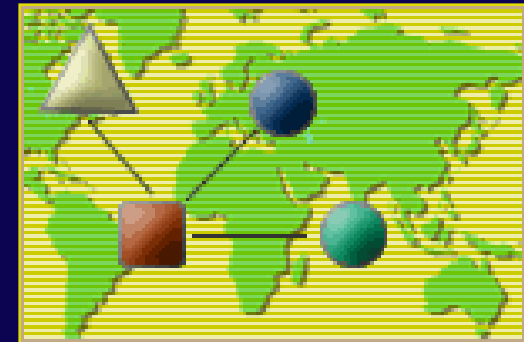
Nanotechnology



Biotechnology/  
nanomedicine



Microelectronics/  
telecommunications



Logistics



Photonics/optics



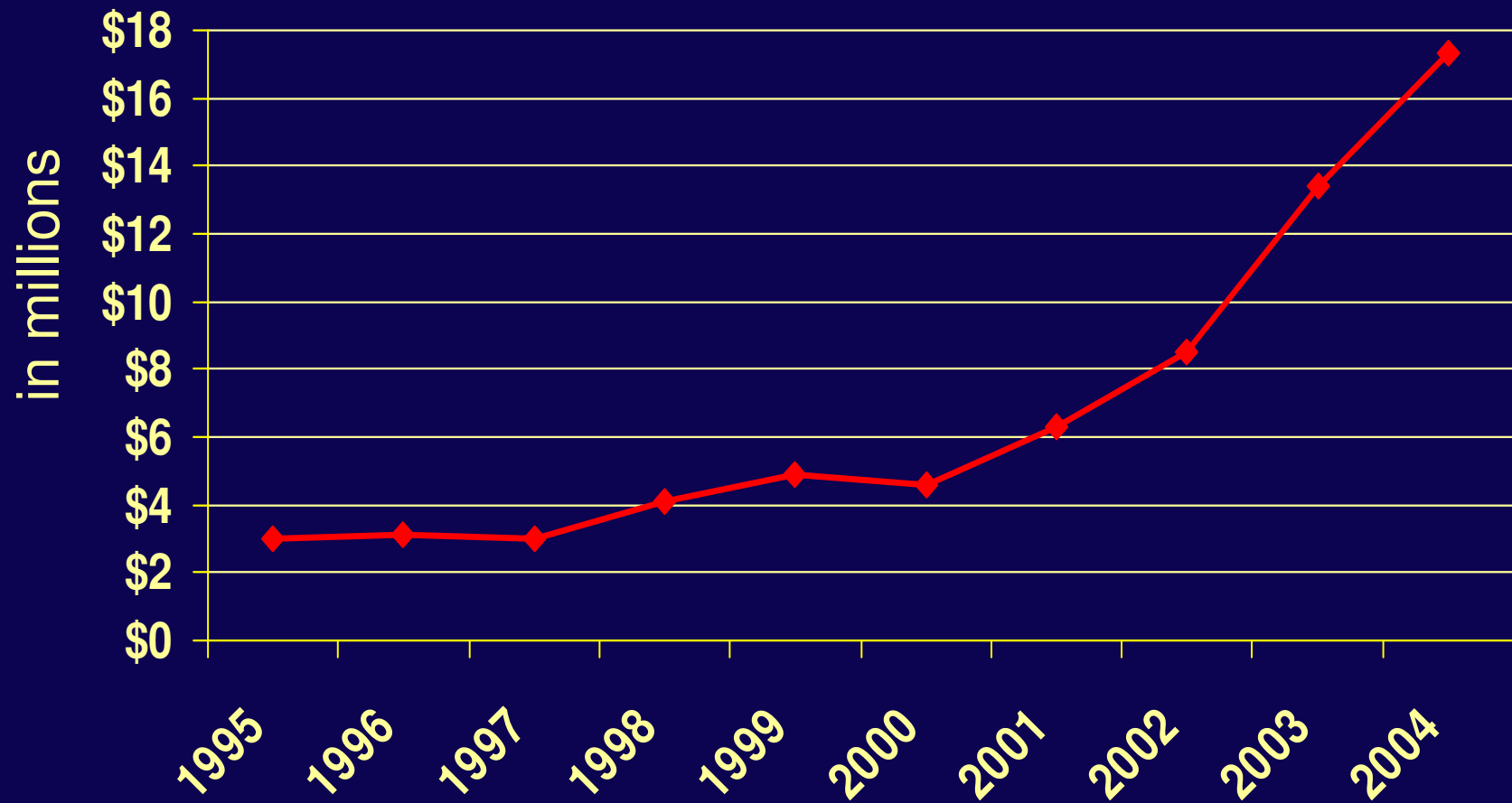
Manufacturing

# Research milestones



- Awards: \$342 million (FY 04)
- Expenditures: \$415 million (FY 04)
- Among nation's top 5 universities without medical school
- Invention disclosures: 277
- Ovarian Cancer Institute

# NIH research awards





In 2003, Georgia Tech attracted the nation's top photonics group of 60 people from Arizona. Coming with them – the National Science Foundation Center of Excellence in Photonics.



# University-based nanotechnology Centers and facilities



# Building a quality, sustainable campus

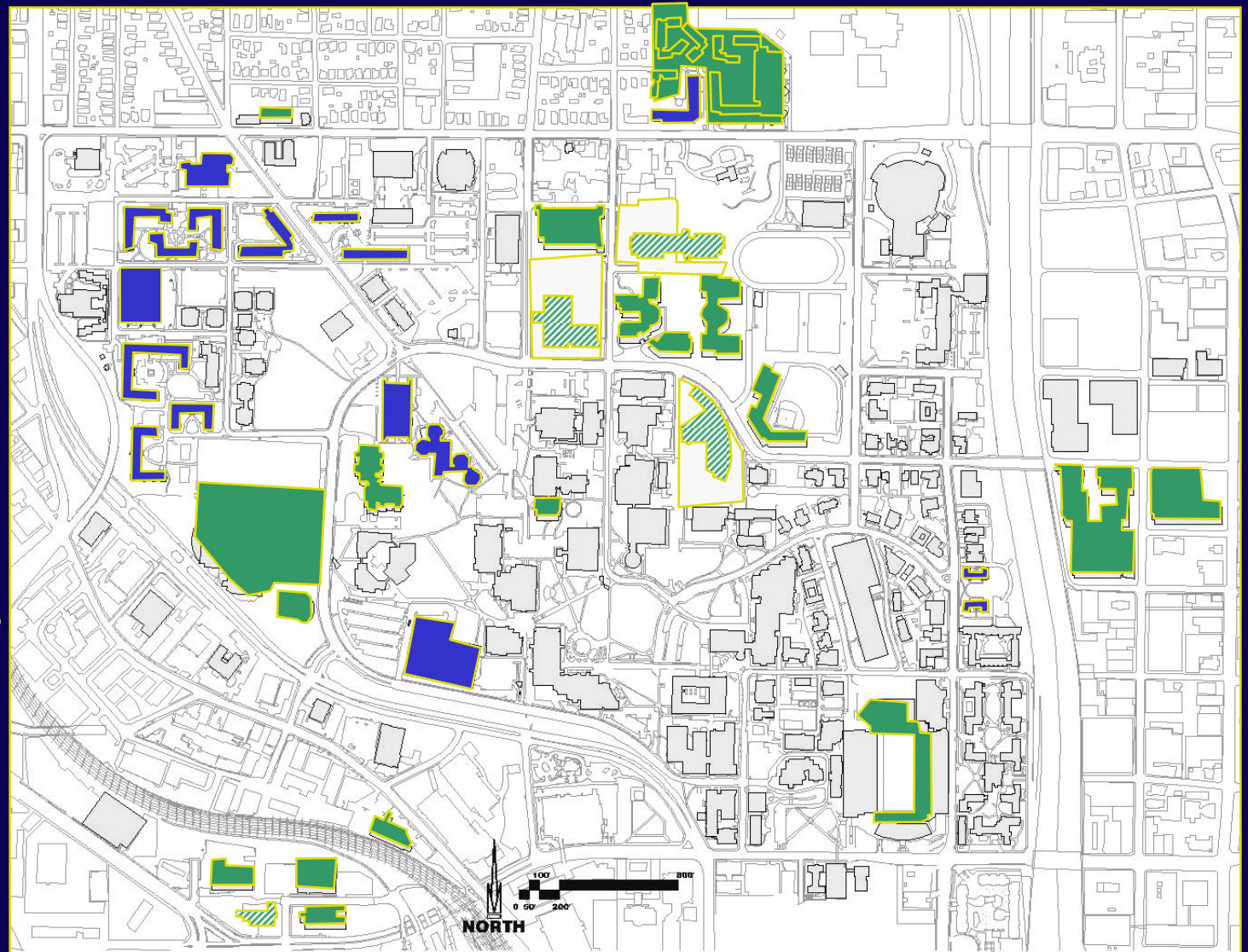
3.5 million gross sq ft of  
new, renovated space.





# Recent construction

- 1992-96  
Olympic era  
construction
- 1996-  
2005
- In process



# Georgia Tech's economic impact



- 23,000 on campus for the working day.
- 7,000 faculty and staff employed.
- 7,600 students living on campus.
- \$1 billion budget.
- Incubated 130 start-up companies, which in 2003 had:
  - ▷ \$1.75 billion in revenues.
  - ▷ \$227 million in capital activity.
  - ▷ 4,300 jobs.



# Technology Square

- Gives Atlanta a visible technology nexus.
- Built on vacant lots, abandoned property.
- Models sustainability.
- Invigorates Midtown's western side:
  - ▷ Midtown's biggest book store
  - ▷ Shops and cafes
  - ▷ Triggered 4,500 new housing units

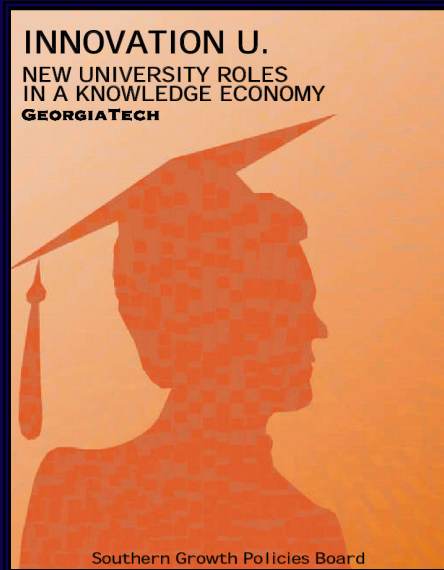


# Driving business growth at Technology Square

- Georgia Tech business programs, services:
  - ▷ Economic Development & Technology Ventures
  - ▷ College of Management
  - ▷ Advanced Technology Development Center (ATDC)
  - ▷ Global Learning & Conference Center
  - ▷ Georgia Tech Hotel & Conference Center
- GCATT
- State Department of Economic Development
- State Quick Start Program
- Georgia Power Company
- Georgia Economic Developers Association
- Georgia Electric Membership Corporation



# Economic development



“Virtually every combination of industry relationship or economic development activity can be found at Georgia Tech, and in a very real sense the school is an operating partner with Georgia state government.... **Perhaps more than any other research university in North America, economic development is an integral, critical component of the mission of the Georgia Institute of Technology,** and this has been true from its very inception.”

Southern Growth Policies  
Board *Innovation U* study







# Building an innovation economy

“The U.S. is not graduating the volume of scientists and engineers, we do not have a lock on the infrastructure, we do not have a lock on the new ideas, and we are either flat-lining, or in real dollars cutting back, our investments in physical science and engineering. The only crisis the U.S. things it has today is the war on terrorism. It's not.”

Craig Barrett

CEO, Intel

“Ladies and gentlemen, this really is rocket science... every individual is going to have to run a little faster if he or she wants to advance his or her standard of living.”

Thomas L. Friedman

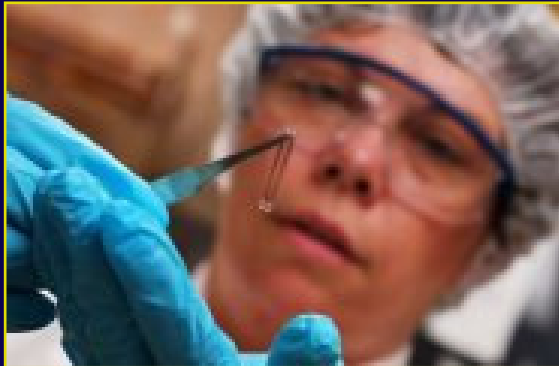
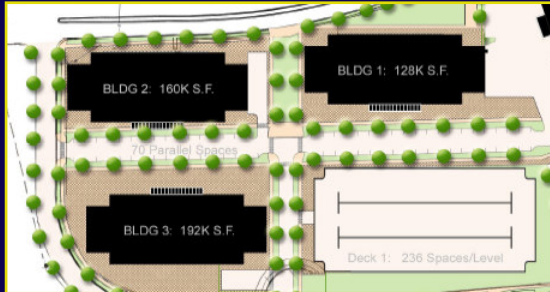
“It's a Flat World, After All”



# National Innovation Initiative

- “Innovate America: Thriving in a world of challenge and change”
- 30 recommendations:
  - ▷ Talent, the human dimension.
  - ▷ Investment, the financial dimension.
  - ▷ Infrastructure, the physical and policy dimension.

# Creating an innovation economy for Atlanta/Georgia



- Missing pieces:
  - ▷ Enterprise parks
  - ▷ Venture capital
  - ▷ Industry-based R&D
  - ▷ Incentives for strategic industries
  - ▷ Focus for nanotech, biotech, IT
  - ▷ Science and technology infrastructure at research univ.
  - ▷ Business-university roundtable
  - ▷ Need to think big



# Why support Georgia Tech?

- Supplement diminished state support:
  - ▷ Enable excellence
  - ▷ Provide flexibility
  - ▷ Allow rapid response to opportunities
- Support increased operational flexibility
- Optimize Tech's role as a critical driver of the innovation economy
- Capitalize on Tech's international linkages